July 2021

ARMY COMMUNICATOR

Supporting warfighter exercises

Plus:

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The Army Communicator is published as a command information e-publication for the men and women of the United States Army Signal Corps under the provisions of AR 360-1.

Opinions expressed herein do not necessarily reflect the views of Office, Chief of Signal, the US Army or the Department of Defense.

Submit articles, photos, graphics, videos, story ideas, and nominations for “Signal Spotlight” to the editor here. For additional information, please call (706) 791-7384.
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COL John T. Batson
Signal School Commandant

CSM Darien D. Lawshea
Signal Corps Regimental Command Sergeant Major

CW5 Chris Westbrook
Signal Corps Regimental Chief Warrant Officer

Nicholas M. Spinelli
Editor-in-Chief

On the Cover

Soldiers assigned to the 57th Expeditionary Signal Battalion-Enhanced (ESB-E) use their new ESB-E network communications equipment tool suite to support Warfighter Exercise 21-3.
Photo courtesy of the 11th Theater Tactical Signal Brigade Public Affairs.

Signal Regimental Team

It's hard to believe we're already half-way through 2021, but summer is in full swing and it's been a season of growth and change for the Signal Regiment.

Last month, we said goodbye to our 6th Regimental Chief Warrant Officer, CW5 Garth Hahn. He played an instrumental role in many of the recent initiatives we've implemented in the Schoolhouse and across the Regiment, and his contributions to the team will be greatly missed.

The Signal Regiment now stands ready to add another Regimental Chief Warrant Officer to its lineage. We are thrilled to welcome our 7th Regimental Chief Warrant Officer, CW5 Christopher Westbrook, to the organization. Coming from Network Cross-Functional Team (NET CFT), Chris brings not only the tactical expertise of a decorated communicator, but also the technical expertise we expect of our Chief Regimental Warrant; he clearly has the experience to serve in this honored position.

We also recently celebrated the 161st anniversary of the Signal Corps. For more than a century and a half, Signaleers have been, "getting the message through", ensuring clear and precise communication across the force. We've come a long way from the semaphore and wig-wag, and it's exciting to watch as our branch continues to evolve.

Soon to celebrate another key milestone in our nation's history, the July fourth holiday is on the horizon. We hope you all will take the opportunity to enjoy the holiday weekend, but it's important to reiterate the need to keep safety your number one priority. Locally, the days have been exceptionally hot, and if you're planning outdoor activities, remember to stay hydrated and wear sunscreen. If you're travelling, drive safely, plan your route in advance, and get plenty of rest before your trip. Above all, stay calm on the road. Accidents and "road rage" incidents are on the rise, and we need all of you to return to duty healthy and in one piece.

Finally, I want to thank you all again for providing such informative and entertaining articles to share within our community as well as with the greater Army as a whole. Please continue to submit your stories and photos to let the world know the amazing accomplishments of your units.

Until next month, Pro Patria Vigilans!

COL John T. Batson
Signal School
Commandant

CSM Darien D. Lawshea
Regimental CSM

CW5 Chris Westbrook
Regimental CWO

Signal School holds Regimental Chief Warrant Officer Change of Responsibility

Nicholas Spinelli
Office Chief of Signal

It was a bitter sweet day for the Signal Regiment, as CW5 Chris Westbrook assumed the role of Regimental Chief Warrant Officer from CW5 Garth Hahn, in a Change of Responsibility ceremony June 11.

The US Army Signal School Commandant and Chief of Signal, Col. John T. Batson, presided over the ceremony, thanking Hahn for his contributions to the organization. “CW5 Hahn has been instrumental in the operation of the Regiment for the last three years,” he said. “To say he will be missed is a gross understatement.”

The Commandant went on to welcome Westbrook to the Regimental team expressing his utmost confidence in the new Regimental Chief Warrant Officer’s ability.

“I think of no better person to take this job on,” Batson said. “He clearly has the experience to serve in this honored position.”

After passing the charter, Hahn reflected on his time with the Signal School and thanked those who had made it such a “rewarding” and “memorable” tour of duty.

“I, like all Signal Soldiers, benefited from the hard work of the Signal School on a regular basis throughout my career,” he said. “But I have to tell you, serving as RCWO these past three years has been an eye-opening, front row seat to just how important, impactful, and far reaching the work done here is. I leave here with a deep appreciation of the collective leadership skills, expertise, and contributions the team here brings to the Army mission.”

When Westbrook stepped up to the podium to speak, he expressed his gratitude to all those he credits with bringing him to where he is and those who are trusting him with this new responsibility, as well as the six regimental Chief Warrant Officers who came before.

“I’m excited to continue blazing their trail and I do appreciate your consideration,” he said. “It’s an honor.”

CW5 Chris Westbrook receives the Regimental charter from Col. John T. Batson, US Army Signal School Commandant and Chief of Signal, during a Change of Responsibility ceremony. Westbrook will serve as the 7th Regimental Chief Warrant Officer succeeding CW5 Garth Hahn.
Photo by Nicholas Spinelli

Army engineers assess network, cyber, EW capabilities during annual field experiment

Jasmyne Douglas
DEVCOM C5ISR Center Public Affairs

Army Futures Command (AFC) is taking emerging network, cyber and electronic warfare capabilities "to the dirt" for field- and threat-based experiments at Joint Base McGuire-Dix-Lakehurst, New Jersey.

Scientists and engineers from the Command, Control, Communications, Computers, Cyber, Intelligence, Surveillance and Reconnaissance (C5ISR) Center – part of AFC's Combat Capabilities Development Command – will assess early research and development efforts and emerging industry solutions during its annual Network Modernization Experiment (NetModX), which began May 17 and will run until July 30.

Sgt. 1st Class Justin Nelson tests the Squad Area Network capability during Network Modernization Experiment 20. The Network Modernization Experiment is held annually and serves as an opportunity to take technologies that are still maturing out of the lab as early as possible and into a fail-safe environment for assessment.
Photo by Jasmyne Douglas

"This will be some of these technologies' first time out in the field, and that's really important because a lot of these science and technology efforts have reached over two or three years of maturity in their development," said Michael Monteleone, C5ISR Center's director of Space and Terrestrial Communications. "This first field experiment is going to be very critical on the path of completion for a lot of these programs."

NetModX 2021 will focus on converged automated and protected communications that enable multi-domain lethality. Approximately 40 technologies will be assessed during the experiment, including the

Center's C4ISR/Electromagnetic Warfare Modular Open Suite of Standards, low probability of intercept/low probability of detection technologies and communication systems in support of the Integrated Visual Augmentation System.

"We partner very closely with our C5ISR community to drive our experimentation objectives," said Dr. Michael Brownfield, the C5ISR Center's Future Capabilities chief, in reference to the selection process of the technologies participating. "We established detailed processes to work one-on-one with each C5ISR stakeholder and then come together as a community to prioritize those technologies which best inform upcoming Army decision points."

Leveraging the C5ISR Center's Ground Activity "fail-to-fix" testing environment, NetModX provides Army scientists and engineers and industry partners the opportunity to assess technologies of various levels of maturity to see how they fare against a series of threat-based scenarios in a variety of tactical environments.

"It's a great opportunity for the Army and industry to learn together about how their technologies are performing," said Joseph Saldiveri, NetModX project lead and C5ISR Center engineer. "As we work through all the data analysis and all of the requirements gathering, we aim through this event to help provide our Soldiers with the equipment that they need to succeed in the future."

Despite being in a field environment, NetModX is a "white-coat" event, meaning government scientists and engineers run the experiment. However, noncommissioned officers of the C5ISR Center will serve in an advisory role, an addition, Saldiveri said, that is "highly valuable."

"We love to have the Soldiers come in and take a look at a technology," Saldiveri said. "Soldiers have a great viewpoint and unique experiences that if they're giving their opinions early in the technology's development, it can shape the way technology develops from here forward."

The C5ISR Center will partner with the Soldier Lethality, Next Generation Combat Vehicle and Network CFTs as well as various program executive offices to execute the experiment.

NetModX 21 will help to close critical capability gaps by informing concepts, prototyping and integration phases for multiple Army Modernization efforts, including Capability Sets 23, 25 and 27 – a collection of capability enhancements informed by experimentation, demonstration and direct Soldier feedback scheduled to be fielded beginning in fiscal years 2023, 2025 and 2027. Each of these integrated sets builds upon the previous package, including Capability Set 21, which is fielding now to select infantry units.

This year's assessments include capability set candidates such as the Squad Area Network – which delivers an intra-squad radio communications network that operates in the presence of electronic interference in challenged environments – and the Dismounted Distributed Tactical Beamforming System – an incorporation of affordable resilient communications capabilities which provide dismounted Soldiers with reach-back to the platoon level and higher.

According to Donald Coulter, the Network Cross Functional Team's (CFT) senior S&T advisor, this type of field-based experimentation is "integral to the Army's Capability Set strategy."

Staff Sgt. Keila Peters, an embedded noncommissioned officer within the C5ISR Center, conducts testing on equipment for the command post survivability effort during Network Modernization Experiment 20.
Photo by Jasmyne Douglas

"The Network CFT works with the C5ISR Center to guide research and development based on the Army's network modernization priorities over time, which we call design goals," Coulter said. "The C5ISR Center, in turn, advises us on the art of the possible to inform that future vision of the network. By working together with the requirements and acquisition communities, we plan, develop, demonstrate and transition technology efforts aligned to those priorities to deliver needed capabilities to Soldiers."

The Army will also leverage NetModX 21 to inform risk reduction for Project Convergence 2022. While NetModX's primary focus is on the following year's Project Convergence risk reduction, Brownfield said the Center prioritizes Project Convergence configuration, integration and operational-thread validation for the current year.

"We try to create an operational environment and mission threads that stress the integrated system at the same levels as Project Convergence in order to validate system configurations and operational performance," Brownfield said.

NetModX will also help industry to gain insight regarding the Army's operational requirements and technology gaps, thus enabling vendors to tailor technology development to meet those needs before entering the competitive acquisition process.

During last year's experiment, C5ISR Center scientists and engineers assessed more than 30 vendor technologies dedicated to mission command resiliency and command post survivability through Cooperative Research and Development Agreements (CRADAs) – a legal agreement between a federal laboratory and a non-federal party to conduct specified research or development efforts.

Usually, CRADAs are formed between the government and industry to perform specific collaborative tasks and take roughly one-and-a-half years to be approved. This year, Brownfield said the Center has adopted a more communications-centric format, reducing the approval time to approximately two months.

"The agreement does not require either the government or industry to do anything except protect the information shared. Either side can leave the agreement at any time," Brownfield said. "Given the flexibility of the generic communications-oriented CRADAs, we are now expanding the CRADA template to incorporate the entire C5ISR Center portfolio to facilitate cross-portfolio collaboration."

According to Monteleone, partnerships with industry and government organizations are critical to technology development as they bring together modularity and help in integrating capabilities onto existing platforms.

"What it comes down to is rapidly integrating and maturing and delivering the very best and latest technologies to our Soldiers as rapidly as possible," he said. "It's a key enabler across not only the C5ISR Center, but the mission space as well."

C5ISR Center engineer Bryan Schiele tests out the Dismounted Distributed Tactical Beamforming System, or D2TBS, during Network Modernization Experiment 20. Photo by Jasmyne Douglas

Army 365 rollout to bolster communications, interoperability

Devon L. Suits
Army News Service

A service-wide migration to Army 365 is currently underway to provide Soldiers and Army civilians a cloud-based capability that will bolster collaboration and connectivity, network leaders said Wednesday.

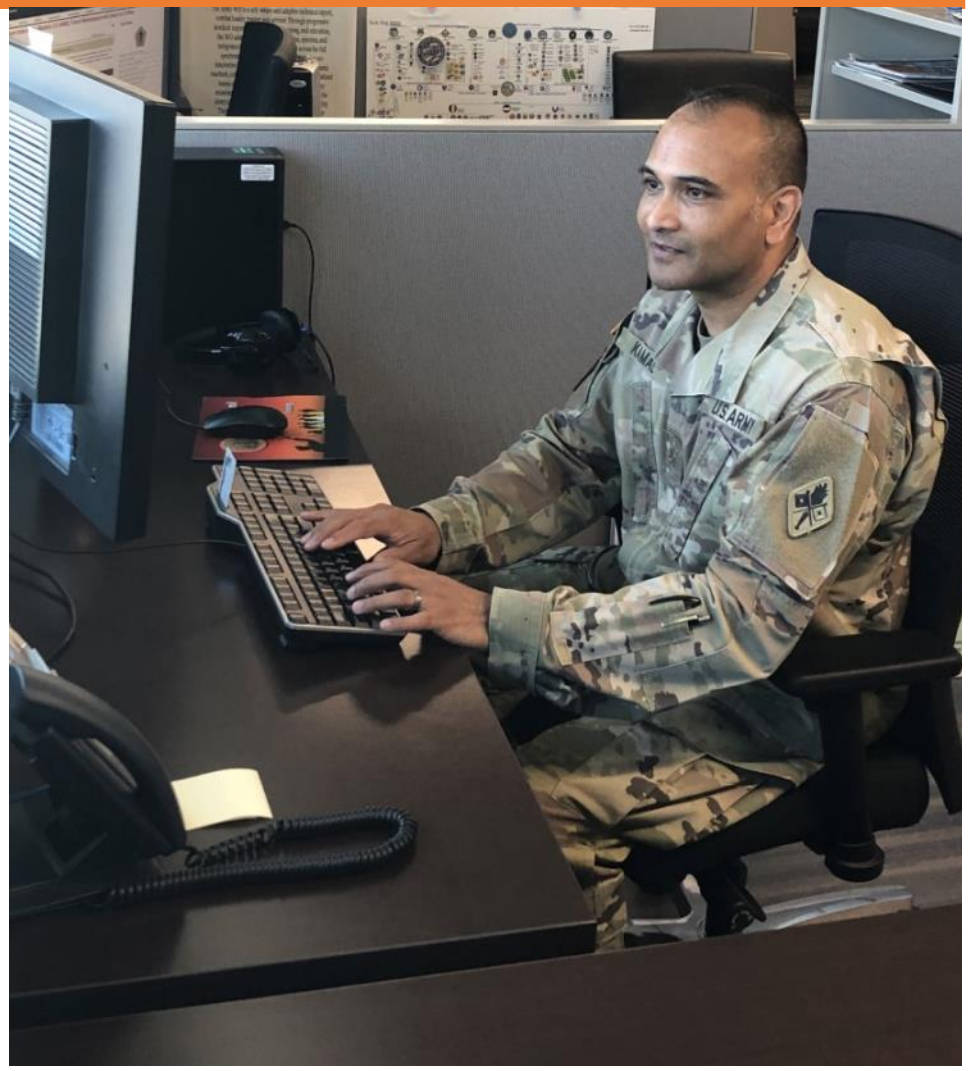
Similar to the suite of capabilities under Microsoft 365, the new Army program will improve information sharing with added cybersecurity measures in place, said Raj Iyer, the Army's Chief Information Officer.

A three-phased approach will transition all Microsoft Teams, email, and SharePoint systems to Army 365 and eliminate the need for the commercial virtual remote environment, or CVR, and other functions, said Lt. Gen. John B. Morrison Jr., Army deputy chief of staff, G-6.

"CVR came in handy during COVID-19 when we all had to go remote and telework for the past 15 months," Iyer said. "Army 365 gives us an enduring capability to collaborate across the Army, along with our sister services, the joint force and industry."

As Soldiers and civilians log into the Army 365 environment for the first time, they will see a suite of programs that will far exceed the CVR experience, Morrison said. The system hosts a range of resources to include video and voice teleconferencing, email, instant messaging, and access to shared drives.

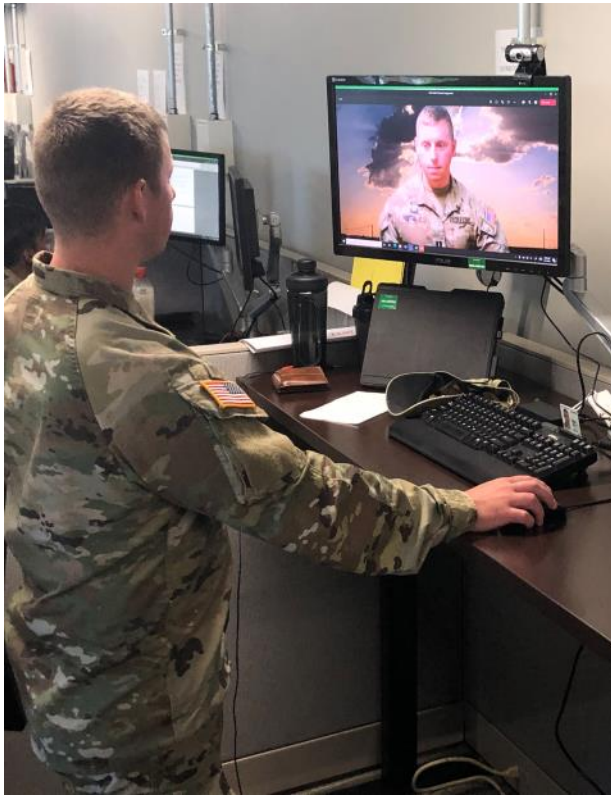
"Cybersecurity was baked into the development of this architecture from the beginning," Morrison said. "As



Maj. Mustafa Kamalreza utilizes CVR for a virtual meeting. A service-wide migration from CVR to Army 365 is currently underway to provide Soldiers and Army civilians a cloud-based capability that will bolster collaboration and connectivity.
Photo by Nicholas Spinelli

we migrate to Army 365, we're treating it like an operation. It is aligned against an operational [command and control] construct."

Morrison added that the goal is to provide an improved user environment. Army Cyber Command and Army Network Enterprise Technology Command have been vital to the rollout and provide an added layer of protection beyond what the commercial market can offer.



Cpt. Raymond DeLucio checks his camera in preparation for a virtual meeting using Microsoft Teams, one of services transitioning to the upcoming Army 365 platform. Photo by Nicholas Spinelli

The shift to Army 365 will also aid in the divestiture of legacy capabilities, like SharePoint and CVR, by shifting all personnel to a familiar environment to improve productivity, Morrison said. In turn, Soldiers can stay connected or have access to their files regardless of where they are at in the world.

"We are also able to provide user support integrated into … the Army enterprise service desk," Iyer added. "Users in the U.S. will have one place to go to receive [Army 365] support."

The first phase of the Army 365 migration started with the service-wide transition of CVR and Microsoft Teams capabilities before the mandatory shutdown of CVR on June 15, Morrison said. The second phase will transition government email capabilities to Army 365 before the closure of the Defense Enterprise Email service by the end of next fiscal year. The Army is looking to complete this process long before the suspense date.

The final phase will move all SharePoint services to Army 365, he added. Due to the large quantity of data and the needs of each unit, this transition process will take the longest. CIO and G-6 leaders expect to finish this process sometime in fiscal year 2022.

"The Guard and Reserve will be treated just like our active component in terms of migrating over to Army 365," Iyer said, adding that they have been working closely with National Guard Bureau leaders to understand their requirements.

"CVR was one of those capabilities that [the Guard] leveraged extensively for command and control in terms of their mission support throughout the states," he said. "We want to make sure that there is no loss in capability and they can operationalize Army 365's capabilities from the get-go."

Program officials will continue to test and validate Army 365 moving forward. As it evolves, they will generate user guides and distribute them throughout the force to ensure a seamless transition, Morrison said.

"Army 365 is going to be such a game-changing integrated capability and it pushes the limit on how we can improve our business and operational processes," he added.

"We are going to look for that feedback. We know that Soldier and civilian ingenuity will use this capability in ways we couldn't even imagine. Capturing those lessons learned will be important."

Second ESB-E formation successfully supporting warfighter exercises

Amy Walker
PM Tactical Network, PEO C3T

The Army completed fielding a new smaller, tailorable and scalable tactical network transport equipment set to the 57th Expeditionary Signal Battalion-Enhanced, in April, at Fort Hood, making it the second unit to be converted to this enhanced signal formation.

"In Multi-Domain Operations, we [as an ESB-E] need to be able to move at the speed of the Warfighter," said Lt. Col. Kemielle Smith, commander for the 57th ESB-E, 11th Theater Tactical Signal Brigade. "When we hit the ground, we need to be able to provide network communications to the units we support within minutes, and with this new equipment, we are able to do that."

The Army's commercial ESB-E Capability Set (CS) 21 baseline equipment package includes the new medium ground satellite terminal and baseband kit – the Scalable Network Node (SNN) – which replaces the unit's legacy at-the-halt tactical network transport equipment, formally known as Warfighter Information Network-Tactical (WIN-T). The reduced size and system complexity of the SNN enables the ESB-E to significantly increase its network support to other units with more nodes and less manpower, while reducing transportation requirements by over 60 percent.

Smith said that he was a young signal Soldier when his assigned unit was first fielded with the legacy WIN-T Joint Network Node – a vehicle-based system that requires military aircraft or ship transport when deployed. Now years later, as an ESB-E commander, he feels as if he has come full circle. Just two weeks after his unit was fielded with the new SNN, he was able to rapidly send several teams on a commercial charter bus with their equipment stored in the cargo hold, to support Warfighter Exercise 21-03, at Fort Riley, Kansas.

"If I had one thing to highlight about this kit is its rapid deployability," Smith said. "It allows us to strategically move equipment, even on a commercial airplane if needed, without having to worry about a train, a plane, or a boat stopping us from getting our job done."

The ESB-E's agile network tool suite is also tailorable and scalable with different sized satellite

Product Manager Satellite Communications (PdM SATCOM), Project Manager Tactical Network, complete Transportable Tactical Command Communications (T2C2) inflatable ground satellite terminal new equipment training for the 57th Expeditionary Signal Battalion-Enhanced. Photo by Richard Shearman

A Soldier assigned to the 57th Expeditionary Signal Battalion-Enhanced (ESB-E) uses a new Scalable Network Node satellite dish to support a three week Warfighter Exercise 21-3. Photo courtesy of the 11th Theater Tactical Signal Brigade Public Affairs

communication systems to enable support to different sized units, from teams to corps elements, in a wide variety of mission sets.

"Until now, our units were limited in their ability to scale equipment to meet mission requirements, but this new kit provides that needed flexibility," Smith said.

Following WfX 21-3, the 57th ESB-E was also on deck to deploy its new equipment on a moment's notice to support III Corps Headquarters forward Tactical Command Post (TAC) during WfX 21-4 in April at Fort Hood, Texas, although the unit did not end up being called in. However, the 57th ESB-E will deploy the tool suite again during upcoming multi-national exercises later this year.

The Army's Project Manager (PM) Tactical Network, at the Program Executive Office for Command, Control and Communications-Tactical (PEO C3T), wrapped up the 57th ESB-E fielding of the CS 21 systems in April, with the fielding completion of the inflatable Transportable Tactical Command Communications (T2C2) satellite terminal. Additionally, the PM had previously fielded the high-throughput Terrestrial Transmission Line Of Sight (TriLOS) Radio, which provides signal path diversity in congested and contested environments, and Secure Wireless for rapid command post set up and tear down.

The toolkit also includes the innovative Unified Unclassified Enclave (U2E). This new system consolidates numerous unclassified hardware enclaves onto a single multi-purpose unclassified hardware platform, with all the appropriate levels of security separation and using encryption standards that exceed National Security Agency requirements.

On the current plan, PM Tactical Network will field several ESB-Es per fiscal year until all of the Army's 23 ESBs have been upgraded to the new baseline capability. The PM will begin fielding the next unit, the 44th ESB stationed in Germany, later this year.

The Army's agile ESB-E acquisition and fielding approach aligns with its two-year incremental Capability Set fielding process, which will allow the service to enhance the ESB-E baseline capability in future capability sets if Soldier feedback warrants it, or when evolving commercial technologies become mature enough to be procured.

"It's all about ensuring that the Army's ESB-E formations have the most advanced communications technologies possible to enable the unit's they support to have the situational awareness they need to defeat a great power enemy," said Lt. Col. Natashia Coleman, product lead for Unified Network Capabilities and Integration, at PM Tactical Network.

In line with the Capability Set development, the Army leveraged Development Security Operations,

(DevSecOps) process, including early industry collaboration, informed experimentation in operational and lab environments, and continual Soldier input from training, field exercises, and real-world unit support, to inform decisions on ESB-E capability, unit formation, and tactics, techniques and procedures.

Also fielded this year, the first unit equipped, the 50th ESB-E, at Fort Bragg, North Carolina, served as the ESB-E pilot unit, with three of its companies providing feedback on different sets of commercial prototype network transport equipment. The year-long pilot informed Army design and fielding decisions on how to best modernize legacy ESBs. During the pilot, the 50th ESB-E successfully used prototype equipment to provide communications support during approximately 60 training exercises and real-world unit support in over 15 countries, including two real-world Immediate Response Force missions.

Soldiers assigned to the 57th Expeditionary Signal Battalion-Enhanced (ESB-E) use a new Scalable Network Node satellite dish and baseband to support Warfighter Exercise 21-3. Photo courtesy of the 11th Theater Tactical Signal Brigade Public Affairs

Staff Sgt. Dylan Carmichael, SNN operator for Charlie Company, 57th ESB-E, said that the new equipment will enable his battalion to better support units in Multi-Domain Operations, where they will need to constantly relocate, or jump, to outmaneuver the enemy. During his unit's last combat training center rotation, his team jumped 11 times, hauling its legacy network equipment to new locations on the battlefield.

"You really don't realize how big a deal size is until you have to jump with your equipment 11 times," Dylan said. "Looking back, if we had done the same thing with an SNN, it would have been a completely different story; it would have taken no time at all. In today's war, units have to be able to communicate from one side of the world to the other, proficiently, securely and quickly. This equipment definitely allows that to happen at a much faster pace than I have seen in the past."

Signal celebrates 161 years

Nicholas Spinelli
Office Chief of Signal

The US Army Signal Corps celebrated its 161st birthday with a ceremony held June 21.

"Since before the birth of the Signal Corps, getting the message through has always been critical to the Army mission," Col. John T. Batson, US Army Signal School Commandant and Chief of Signal, said. "Now in an information-advantage era, communications technologies play an even larger role in our everyday life."

During his remarks, Col. Batson pointed out the impressive expansion of communication technologies over the last century –and-a-half. What hasn't diminished, he pointed out, was the need for qualified signaleers to ensure that technology is utilized to the best of its capabilities.

The US Army Signal Corps celebrated its 161st Anniversary with a cake-cutting ceremony June 21.
Photo by Nicholas Spinelli

"As we continue to look to the future and modernize the capabilities of the force, we can't forget the people," he said. "More important than technology are the Soldiers and leaders, of the US Army Signal Corps who have made success on the battlefields possible."

The Signal Corps has played a major role in every conflict since the Civil War, and many of the communications enjoyed today were pioneered by past Signal Soldiers.

"We honor the legacy of those communicators who have come before us and have yet to come and recognize the past and future of our Regiment here today," he said.

Before cutting the cake, Brig. Gen Christopher Eubank, 7th Signal Commanding General and former Chief of Signal, reiterated the importance of the Corps and its role in mission success.

"Nothing gets done in the Army today without a signaleer," he said.

From left: Brig. Gen Christopher Eubank, 7th Signal Commanding General; 2Lt. Kaiser Kelcho and PV2 Killyan Wells, the youngest Signal Officer and Soldier present; Col. John T. Batson, US Army Signal School Commandant and Chief of Signal; and Command Sgt. Maj. Darien D. Lawshea, Regimental Command Sergeant Major; cut the cake at the US Army Signal Corps 161st Birthday celebration. Photo by Nicholas Spinelli

The US Army Signal Corps was born in the years preceding the Civil War, when a need for a uniform communication method was discovered.

"The idea that an army should have Soldiers dedicated to enable communications is attributed to Dr. Albert James Myer," Steven Rauch, US Army Signal School historian said. "He proposed the War Department consider a signal system using flags based on the concepts of sign writing."

Myer presented his "wig-wag" system, which was adopted in 1860. Over the years, Signal communication systems evolved to include balloons, telegraph systems, radio and telephone, and computers and satellites. Through it all, the Signal Corps has been on the frontline communication technology. Additionally, advances in aviation and even space communication were pioneered by the Signal Corps and the Regiment remains on the cutting edge of communication.

"Whether by Wig-Wag or WIN-T--the men and women of the U.S. Army Signal Corps will continue ensuring that the message always gets through," Col. Batson said.

Signal Museum artifacts safely stored, rehoused

Laura Levering
Fort Gordon Public Affairs Office

It's been more than three months since the U.S. Army Signal Corps Museum's doors were closed indefinitely on Fort Gordon, and concerns over what's next for it are being expressed around town and on social media.

Hoping to raise awareness of the museum's current status, and potentially dispel any rumors, Amy Tuschen said the museum's fate is largely in the hands of the community.

Tuschen, executive director for the Fort Gordon Historical Museum Society, said a new location has been identified, but the funds necessary to acquire it have not come through yet.

Amy Tuschen, executive director for the Fort Gordon Historical Museum Society, reflects on memories had at the former U.S. Army Signal Corps Museum. Tuschen, a former Signal Corps officer whose father was also a Signal Corps officer, is deeply invested in the museum's future. Photo by Laura Levering

Now the Fort Gordon Historical Museum Society, a 501(c)3 nonprofit organization, is trying to raise sufficient money to purchase the new site before the former location is demolished in preparation for construction of the new Cyber Center of Excellence campus.

"Unfortunately, the Signal Museum is in the footprint of that new construction," Tuschen said, adding that she knew the day would come when the museum would be forced to relocate.

Located a short distance from Gate 1 on Gordon Highway, Tuschen said plans are in motion to relocate the museum to the former National Science Center building. While the ideal situation would be to relocate somewhere on Fort Gordon, it's simply not possible due to lack of available, adequate space.

But it isn't all bad news. The new site is a very short distance from Fort Gordon, making it easily accessible for everyone.

"Having it off post will also open up the market for other people to be able to get there," Tuschen said.

In the meantime, the museum's artifacts are being carefully packed and prepared to move elsewhere, if only temporarily.

"The Center for Military History is actually responsible for all of the Army museums, and they sent a team down here to work with the curator to pack things up … now they're ready to go to other locations," Tuschen said.

The Army is sending most packed items to a museum in Anniston, Alabama, which will serve as an interim holding place.

Several artifacts that are not signal-related have already moved to other museums. One of the goals, Tuschen said, is to keep as many items rehoused on Fort Gordon as possible until the final move.

"For example, the statue of Mercury is very unique and so the intent is to bring that over to the Signal School and let that stay here on display, Tuschen said.

Other irreplaceable artifacts include a large piece of the Berlin Wall, Oscar statuettes that were awarded to the Signal Corps in the 1940s, and one of Adolf Hitler's telephones taken from his personal library.

Tuschen said that the sooner they are able to secure the future site, the better the chances are of artifacts remaining in the area.

"They need to have this building vacated before August, so they're looking at moving the pallets and things that are already packed up sometime in June," Tuschen said. "There's so much history that would be lost that has been here all this time, and not only that, we are trying to grow to show the cyber history and to touch on the other things that Signal Corps has created."

A camera bag and teletypewriter are among hundreds of artifacts that have been part of the U.S. Army Signal Corps Museum. Photo by Laura Levering

Please join us in a virtual celebration of the 302D Signal Battalion as the unit celebrates its Centennial Anniversary. This event will include guest speaker Brig. Gen. Christopher L. Eubank and other distinguished guests.

Brig. Gen. Christopher L. Eubank

Date: July 29, 2021

Time: 10 AM EST

Facebook Link: https://www.facebook.com/302DSIGNALBN

An introduction to FA26

Functional Area (FA) 26 officers provide the Army with a professional corps of skilled communications systems engineering officers able to lead highly technical Soldiers, Warrant Officers and civilians to manage complex information technology projects in support of Multi-Domain Operations. FA26 is a challenging yet rewarding career field that is highly respected within the Army and other Services. AOC 26A Network Systems Engineers enable the end-to-end transport of information through telecommunications networks via routing, switching, varying transmission mediums, and other means. AOC 26B Information Systems Engineers engineer, implement and manage the integration and security of enterprise services such as active directory, database management, e-mail, web-based applications, and many others. Visit https://www.milsuite.mil/book/groups/ocosod26 for more information on the FA26 career field and for application instructions.

Cpt. John Vaughn
82nd Airborne Division

In October of 2019, I walked in to my first day of the FA 26B course not knowing what an IP address was and feeling a mix of excitement, trepidation, and determination. Today, I hold industry leading certifications in Cybersecurity and management and I am the 82nd Airborne's first and only cloud engineer, working with a cross-organizational team on one of the most exciting and innovative projects the Army is currently undertaking.

I wasn't sure exactly what I was signing up for when I submitted my Voluntary Transfer Incentive Program (VTIP) application to transfer from Infantry to Functional Area 26B. I knew that I wanted to do something new and concrete, something that would let me develop technical skills and gain valuable work experience, and I appreciated at least conceptually the huge and growing importance of the cybersecurity and information technology industries. What I discovered through the course and through the first year in my position as the Deputy Chief of Information Systems in the G6 of the 82nd Airborne was a rich and rewarding career where my experience as an Infantry Officer, my passion for learning and for solving problems, and my dedication and work ethic all conspired to give me a highly successful first year.

Operating as a FA 26B in a fast-paced tactical environment such as the 82nd Airborne Division presents a set of unique opportunities and challenges not found anywhere else in the Army, opportunities and challenges that your training certainly didn't prepare you for.

Cpt. John Vaughn delivers an impromptu class on services architecture .
Courtesy photo

Shortly after arriving to my position, I found myself feeling totally underwater under the sheer weight of work and responsibility I had taken on. My server team consisted only of myself and my Chief Warrant Officer 2 (CW2), and we were preparing for a Warfighter exercise that was mere months away and a mountain of tasks to accomplish, from recovering multiple failed Doman Controllers and deploying (and re-deploying, and re-re-deploying) a new Command Post Computing Environment (CPCE) version on our stacks, to helping our subordinate Brigades' Warrant Officers build their own environments. We spent many long days deciphering Microsoft Exchange error logs, modifying CPCE PowerShell scripts, building Microsoft SQL database backups, and figuring out how to connect all the various Mission Command Platforms to the Defense Dissemination System. He and I developed a tight relationship with him and he became my mentor in many ways, and now we are a fantastic team and have accomplished some amazing things.

The future is looking bright for me, too. Earlier this year we received two new Warrant Officers 1s (WO1), who I helped train from the ground up and who are now prepared to go to a Brigade and be ready to fight on Day 1. I was hand-selected to lead the 82nd Airborne's Cloud and Data Initiative, part of Project Ridgway, as a cloud engineer and have been aggressively pursuing training and certification relating on everything from Artificial Intelligence (AI) and Machine Learning (ML) to Cloud Infrastructure and Security. I am working with some of the brightest minds in the Army to plan, develop, and build the Army's first Tactical Cloud in the SIPR environment and to develop web and ML applications that will help the next generation of Army leaders make better decisions by providing them with better information. My command has been extremely supportive, and has encouraged me to pursue these self-development goals knowing that by investing in me, they are ultimately investing in the organization. I come to work every day excited to keep learning and solving problems, and I wouldn't rather be anywhere else in the Army.

The 82nd Airborne's SACP sets the standard for an expeditionary command post; in a few short hours it can go from commanding a division to packed up and wheels rolling due to its highly trained Paratroopers and the clever configuration of its signal equipment.
Photo provided by Cpt. John Vaughn

A Short History of the Signal Corps Warrant Officer

Steven J. Rauch
Signal Corps Historian

Enabling communications has been the core mission of the US Army Signal Corps for over 160 years. To ensure reliable communications, the Signal Corps Warrant Officer cohort has continually adapted from the days of simple electro-magnetic systems, through an era of vacuum tube technology, to the application of microchip processors and digital technology. No matter how much communications technology has changed, the core mission of the Signal Corps has remained constant and it has been the Signal Corps Warrant Officer who has provided the stalwart hand to guide both change and continuity to ensure the message can always get through.

While Signal Corps Warrant Officers may not be able to trace their specialties back to 1918, there have been several distinct functions associated with particular equipment systems as far back as World War II. For example, the MOS 0145 radar maintenance and repair officer ensured the function of one of the most radical technological capabilities that changed warfare in the land, sea and air domains. The development of radar (radio detecting and ranging) enabled sound to locate approaching enemy aircraft. The Signal Corps developed two radar sets, the SCR-268 to direct searchlights for targeting, while the SCR-270 was a mobile, long-range, aircraft early warning set. These systems depended upon skilled warrant officer technicians to ensure readiness to detect an impending aerial threat to US ground, air and sea units.

It was not until 1961 where one can begin to see a continuity of MOS adjustments leading to the current structure for Signal warrant officers. In 1948, the maintenance of electronic equipment was the responsibility of MOS 4415, Signal equipment maintenance and repair officer. In 1961 this changed to MOS 286A, communications-electronics repair technician. At that time a number of related specialties were created to include MOS 281A, radio repair technician; MOS 282A, radar repair technician; and MOS 284A, television repair technician. These MOSs were eventually integrated into MOS 286A during the 1970s which remained the stalwart Signal warrant officer MOS for many years. In October 1987, MOS 286A converted to MOS 256A, communications-electronics repair technician, to include data processing systems repair and fire distribution systems repair. The 256A remained a fixture of the Signal Corps for almost 10 years until the mid-1990s when DA decided to move all maintenance MOSs to the Ordnance Corps. As a result, the 256A warrants were re-coded as 918B and those who

Courtesy graphic

SCR268 Anti-Aircraft Searchlight Radar Set used during World War II. Photo provided by Signal Corps Historical Collection

remained became members of the Ordnance Corps.

During Vietnam, the Signal Corps pioneered the use of satellites for providing communications between land, sea, air and space domains. In August 1964, Signal Soldiers led by Warrant Officer Jack H. Inman, established an experimental ground station with telephone and teletype circuits in Ba Queo near Saigon. Using a satellite 22,000 miles above the Pacific Ocean, this station was able to provide communications between Vietnam and Hawaii. This synchronous communications satellite system, named SYNCOM, proved that space-enabled communications could provide commanders with reliable and extended communications.

In response to the growing Soviet threat in the early 1980s, the US Army sought to improve command and control for the new Air -Land battle doctrine. This included modernization of communications systems at division and corps level in a new tactical communications architecture known as Mobile Subscriber Equipment, or MSE. At battalion level and below, the Army introduced new VHF-FM combat net radios, the Single Channel Ground and Airborne Radio System (SINCGARS). To enable these systems the Signal Corps created MOS 250A, telecommunications technician, in 1987 and 250B, tactical automated network technician, in 1988. MOS 250As were known for their depth and breadth in communications security and telecommunications message systems, while MOS 250B were known for their expertise in MSE and the TRI-TAC switching suite of equipment. Eventually, both of these MOSs merged into MOS 250N, network management technician in April 1999.

Another decision by DA in the mid-1980's created the Information Mission Area that combined five related functions of communications, automation, visual information, publications and printing, and records management for which the Signal Corps was assigned responsibility. The IMA concept resulted in renaming everything "communications" to "information" across the Army. A significant part of IMA included transferring the Army's computer science school from the AG School at Fort Benjamin Harrison to the Signal School at Fort Gordon in 1988. This move reflected an adjustment of the role of the desktop computer from being an administrative word processor into a communications platform that could transport information through an electronic network.

The move of computer systems responsibility to the Signal Corps resulted in huge impacts upon the warrant officer cohorts of both branches. In April 1976 the

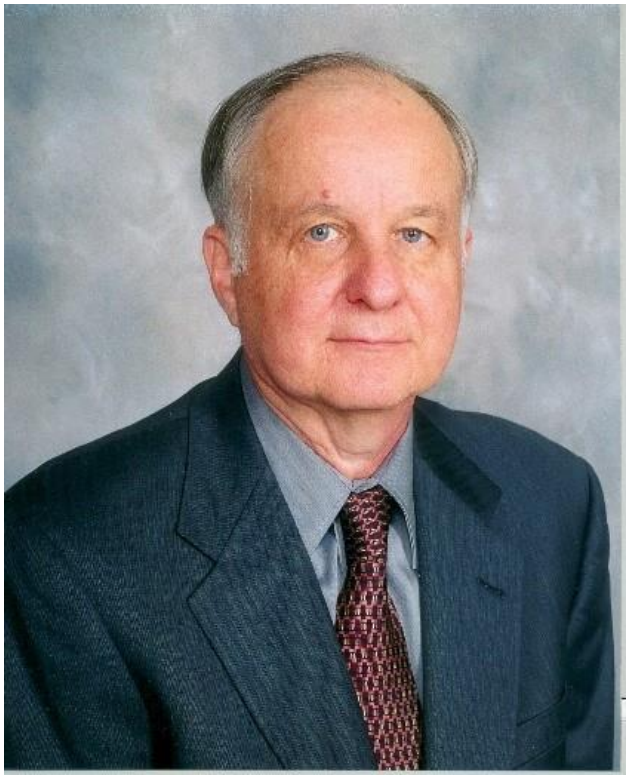
automated data processing field was consolidated into MOS 741A, data processing technician. Upon transfer to the Signal Corps in October 1987, MOS 741A converted to MOS 251A, data processing technician responsible for server operations and information systems, as well as assurance programs.

After Operation DESERT STORM in 1991, Army leaders embraced the potential of information technology systems to provide real-time situational awareness. This resulted in digitization programs for the tactical force, known as Force XXI. In the late 1990s, experiments were conducted using applied digital technology to combat systems to obtain information dominance over future adversaries.

In 1988 the US Army Computer Science School was moved from Ft. Ben Harrison to Ft. Gordon bringing with it data processing technicians who became 251As in the process.
Photo provided by Signal Corps Historical Collection

Digitization also enabled fielding of the Secret Internet Protocol Router (SIPR) Network, a classified network similar to the Internet for exchanging operational plans and information, while the Non-Secure Internet Protocol Router (NIPR) Network was used to exchange less sensitive information. Together with the Joint Worldwide Intelligence Communications System (JWICS), these networks comprised the Defense Information Systems Network.

In 1992, John “Jack” A. Hrubik made history when was selected to be the first Signal Corps chief warrant officer five. Hrubik was one of 240 master warrant officers in the Army from which 89 were selected for promotion to CW5. Out of three Signal Corps candidates, Hrubik was the only one selected. Though he was the senior warrant officer in the Signal Corps, there was no specific role for him to play in the organization to apply his experience. This would be change in December 2, 1999 when Maj. Gen. Peter Cuviello approved creation of the regimental chief warrant officer position in order to recognize the special skills and contributions of warrant officers throughout the branch.



In 1992 Jack Hrubrik was the first Signal warrant officer promoted to the rank of Chief Warrant Officer Five.
Photo provided by Signal Corps Historical Collection

During the global war on terrorism, Signal warrant officers proved technical expertise as well as courage as Soldiers during the challenges of battle. CW2 Alexander S. Coulter, a MOS 250N, served with the 124th Signal Battalion, 4th ID and like his fellow warrant officers, constantly strove to provide a seamless flow of communications to all soldiers of Task Force Iron Horse. On November 17, 2003, CW2 Coulter was killed by an improvised explosive device while traveling to Tikrit, Iraq. The memory of his service is honored by an award presented to the distinguished honor graduates of the WOBC and WOAC courses at the US Army Signal School.

During the mid-2000s, the Army transition from divisions to modular brigades greatly affected the Signal Corps. The division signal battalion was inactivated and signal companies were incorporated into the brigade special troop's battalion (BSTB). In addition, maneuver enhancement brigades included an embedded signal company as did some sustainment brigades. To support these units, MOS 254A, signal systems support technician, was created in April 2003 to provide a communications technical expert in maneuver formations. MOS 254A were known for their expertise in Combat Net Radios, COMSEC, and Signal support to tactical operation centers. The result was the BCT had organic Signal technical support unlike ever before.

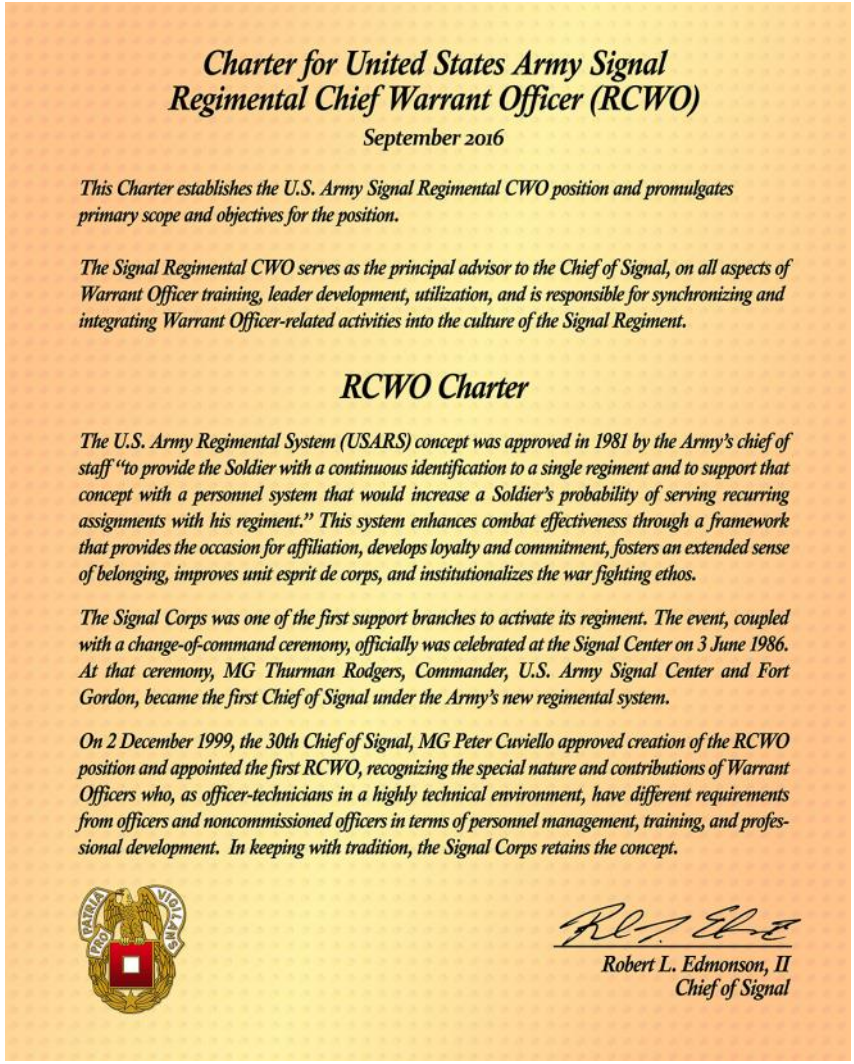
At the end of the first two decades of the 21st century, the warrant officers of the Signal Corps have stabilized into three distinct but complimentary MOSs: 255A, 255N, 255S; along with a capstone MOS, 255Z. The newest warrant officer MOS established in 2009, 255S information protection technician, initially drew from both 255A and 255N CW3-CW4 cohorts. The 255S was designed to provide commanders with a warrant officer skilled in cyberspace defense and execute protection, detection, and reaction functions to ensure combat information superiority. The first WOAC class of 255S was conducted in June 2011 as a pilot program. When the Cyber Branch was created on September 1, 2014 with the MOS 170A, cyber operations technician, the Army reassessed tasks and assignments that overlapped or intersected for network defense. As a result, some 255S critical tasks were divested and assigned to the 170A with a direct result being the 255S WOAC course reduced from 25 weeks to 19 weeks and 4 days in length. After several years in the field, the need for implementing a 255S WOBC became apparent which would change the developmental process for the MOS. In January 2020, a pilot 255S WOBC was conducted with 12 students (6 active; 4 national guard; 2 Army reserve) in a 22 week long residence course. This also resulted in changing the MOS from a CW3-CW4 force structure to a

CW2-CW4 force structure because of the ability to grow technicians out of the basic course.

In October 2012, MOS 250N transitioned to MOS 255N, network transport technician, responsible for voice, video, and data networks; establishing and maintaining the transport layer of the Army's portion of cyberspace domain functions including fault management, configuration management, auditing and accountability measures, and implementing security measures to enable combat information superiority and command and control. Also in October 2012, MOS 251A and 254A transitioned to MOS 255A responsible for cyberspace content management. This is the Army's information systems and services technician charged with establishing and maintaining the ability to collect, process, store, secure, and disseminate information using the application layer environment of the Army's portion of the cyberspace domain. The 255As administer and manage systems in order to enable Information Management/ Knowledge Management functions to enable combat information superiority and decision dominance.

Finally, MOS 255Z, Senior Network Operations Technician was established in April 2003 at the grade of CW5 to serve as the premier technical and tactical advisor for network operations at any echelon of command, support activity, or joint staff sections of theater combatant commands or allied armies. These officers provide leadership, guidance, technical input, and direction to subordinate elements, staff agencies, and field commanders up to and including theater Army level.

As has been demonstrated, the Warrant Officers of the Signal Corps are integral in providing rapid, reliable, and secure communications within any domain, which the US Army operates today. More important than technology are the people – the men and women Warrant Officers of the Signal Corps - who have made success on the battlefields of American history possible and will continue to ensure that the message always gets through. Pro Patria Vigilans!



Charter for United States Army Signal Regimental Chief Warrant Officer (RCWO)

September 2016

This Charter establishes the U.S. Army Signal Regimental CWO position and promulgates primary scope and objectives for the position.

The Signal Regimental CWO serves as the principal advisor to the Chief of Signal, on all aspects of Warrant Officer training, leader development, utilization, and is responsible for synchronizing and integrating Warrant Officer-related activities into the culture of the Signal Regiment.

RCWO Charter

The U.S. Army Regimental System (USARS) concept was approved in 1981 by the Army's chief of staff "to provide the Soldier with a continuous identification to a single regiment and to support that concept with a personnel system that would increase a Soldier's probability of serving recurring assignments with his regiment." This system enhances combat effectiveness through a framework that provides the occasion for affiliation, develops loyalty and commitment, fosters an extended sense of belonging, improves unit esprit de corps, and institutionalizes the war fighting ethos.

The Signal Corps was one of the first support branches to activate its regiment. The event, coupled with a change-of-command ceremony, officially was celebrated at the Signal Center on 3 June 1986. At that ceremony, MG Thurman Rodgers, Commander, U.S. Army Signal Center and Fort Gordon, became the first Chief of Signal under the Army's new regimental system.

On 2 December 1999, the 30th Chief of Signal, MG Peter Cuviello approved creation of the RCWO position and appointed the first RCWO, recognizing the special nature and contributions of Warrant Officers who, as officer-technicians in a highly technical environment, have different requirements from officers and noncommissioned officers in terms of personnel management, training, and professional development. In keeping with tradition, the Signal Corps retains the concept.

Robert L. Edmonson, II
Chief of Signal

The position of Regimental Chief Warrant Officer was created in 1999.
Photo provided by Signal Corps Historical Collection


In the next
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COMMUNICATOR
The 304th
celebrates
100 Years
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